UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/695,402	10/25/2000	Howard W. Fingerhut	BS00-189	2671

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EXAMINER
PHAN, TAM T

ART UNIT	PAPER NUMBER
2144	

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
	09/695,402	FINGERHUT ET AL.
Office Action Summary	Examiner	Art Unit
	Tam (Jenny) Phan	2144

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _10 January 2005_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-87_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-87_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _25 October 2000_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on

01/10/2005 has been entered. Claims 1, 14, 25, 36, 43, 49, 60, 78 and 84 are currently

amended. Claims 2-13, 15-24, 26-35, 37-42, 44-48, 50-59, 61-77, 79-83 and 85-87 are

original.

2.   Claims 1-87 are presented for examination.

Priority

3.   No priority claims have been made.

4.   The effective filing date for the subject matter defined in the pending claims in

this application is 10/25/2000.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 1-87 rejected under 35 U.S.C. 103(a) as being unpatentable over Ennis,

Jr. et al. (Patent Number 5,867,483), hereinafter referred to as Ennis, in view of Tams et

al. (U.S. Patent Number 6,327,620), hereinafter referred to as Tams, in view of Schaffer

(U.S. Patent Number 6,219,050), and further in view of Schweitzer et al. (U.S. Patent

Number 6,418,467), hereinafter referred to as Schweitzer.

7.   Regarding claim 1, Ennis disclosed a method of monitoring a packet-switched

network using traffic logs (Abstract, Figures 1 and 11), comprising:

>   creating a histogram file (Figures 13-16, column 4 lines 45-64, column 5 lines 13-
>   22);
>
>   generating a traffic log at a first location within the network, the traffic log
>   containing a plurality of values detected from data transmission (column 2 lines
>   16-30, column 7 lines 22-28, column 8 lines 11-16);
>
>   transferring the traffic log from the first location [short term database] to a second
>   location [long term database] (Figure 10, column 14 lines 8-33);
>
>   storing the traffic log generated by the network at the second location [long term
>   database] (Figure 10, column 2 lines 16-30);
>
>   analyzing the stored traffic log to determine the time of creation of the traffic log
>   and the network entry and exit points of the packet (Figures 11, 13-16, column 3
>   lines 58-67, column 4 lines 45-64).

8.   Ennis taught the invention substantially as claimed. However, Ennis did not

specifically teach updating the histogram file using at least the time of creation of the

traffic log and at least one of the entry and exit points of the packet.

9.   Ennis suggested exploration of art and/or provided a reason to modify the

method with the updating feature (column 3 lines 58-64, column 4 lines 45-54).

10.   Tams disclosed a method of monitoring a packet-switched network using traffic

logs comprising the step of updating the histogram file using at least the time of creation

of the traffic log and at least one of the entry and exit points of the packet (Figures 8 and

10, column 35-65).

11.   It would have been obvious to one of ordinary skill in the art at the time of the

invention was made to modify the method of Ennis with the teachings of Tams to

include the updating feature in order to appropriately capture data transmission system

activity (Ennis, column 9 lines 11-15) since network traffic monitoring generally being

done over the specified time interval (Tams, column 3 lines 44-45).

12.   The combination of Ennis and Tams taught the invention substantially as

claimed, however, the combination of Ennis and Tams did not teach the step of

generating a traffic log at a first location within the network based upon detection of a

packet, the traffic log containing a plurality of values detected from the packet including

a network entry point and a network exit point of the packet.

13.   Tams suggested exploration of art and/or provided a reason to modify the

method of Tams with generating a traffic log where each traffic log contains values such

as network entry point and a network exit point of the packet for *an individual packet*

(column 5 lines 1-9, column 13 lines 35-42, Table 2).

14.   Schaffer taught a method of generating a traffic log at a first location within the

network based upon detection of a packet, the traffic log containing a plurality of values

detected from the packet including a network entry point and a network exit point of the

packet (Schaffer, Abstract, column 1 lines 17-35, column 2 lines 24-31, column 6 lines

5-27).

15.   It would have been obvious to one of ordinary skill in the art at the time of the

invention was made to modify the combined method of Ennis and Tams with the

teachings of Schaffer to include a step of generating a traffic log where each traffic log

contains values such as network entry point and a network exit point of the packet for

an individual packet since for cases where an application's network behavior must be understood, the ability of capture and display data associated with an individual packet is desired because in multi-tier applications, it is often difficult to understand the source and destination of a packet (Schaffer, column 1 lines 54-64, column 2 lines 10-17).

16.   Ennis suggested exploration of art and/or provided a reason to modify the combined method Ennis, Tams, and Schaffer with the step of generating billing data from the stored traffic logs (column 2 lines 64-column 3 lines 8, column 5 lines 23-40, column 24 lines 51-59).

17.   Schweitzer disclosed a method having step of generating billing data for network use at the second location using information from the stored traffic logs (Abstract, Figure 1, column 2 lines 19-28, lines 44-53, column 5 lines 16-22).

18.   It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the combined method of Ennis, Tams, and Schaffer with the teachings of Schweitzer to include a step of generating billing data for network use at the second location using information from the stored traffic logs in order to price their available services according to user's need since consumers and businesses may want to be billed according to their usage at particular qualities of service (Schweitzer, column 1lines 35-55).

19.   As the rejection reads, the combination of Ennis, Tams, Schaffer, and Schweitzer taught all the limitations as claimed in claim 1.

20.   Regarding claim 2, Tams disclosed a method wherein the histogram file is a flat file, whereby direct and rapid access to stored data is effected (column 2 lines 16-30).

21.   Regarding claim 3, Ennis disclosed a method wherein two histogram files are created, a first histogram being representative of traffic being passed into the network and a second histogram being representative of the traffic being passed from the network (column 4 lines 45-59, column 7 lines 23-52).

22.   Regarding claim 4, Ennis disclosed a method wherein the histogram file is representative of traffic passing to a host connected to the entry or exit point (Figure 1, column 7 lines 18-40).

23.   Regarding claim 5, Ennis disclosed a method further comprising repeating steps (b) - (d) for at least a predetermined period (column 4 lines 45-64, column 15 lines 31-45).

24.   Regarding claim 6, Tams and Schaffer disclosed a method further comprising analyzing the traffic log to determine state information of a packet associated with the traffic log, and updating the histogram with the state information (Tams, column 7 lines 22-41; Schaffer, Abstract, column 3 lines 23-29).

25.   Regarding claim 7, Ennis and Tams combined disclose a method wherein the histogram plots packets per minute versus time (Ennis, Figures 11 and 13-16; Tams, column 3 lines 44-52).

26.   Regarding claim 8, Ennis disclosed a method further comprising broadcasting from a server computer data representative of the histogram to a client computer (column 15 lines 31-45). Tams also disclosed this limitation (column 6 lines 39-45).

27.   Regarding claim 9, Ennis disclosed a method wherein the network is a packet network [Mobitex network] (Title, Abstract). (Note: Mobitex technology is a well-known packet data network).

28.   Regarding claim 10, Ennis disclosed a method further comprising displaying a

histogram based on data in the histogram file (Figures 11 and 13-16, column 6 lines 9-

37, column 17 lines 6-24).

29.   Regarding claim 11, Ennis and Tams disclosed a method further comprising

creating at least one histogram for each host of the network (Ennis, Figures 11 and 13-

16, column 17 lines 25-53; Tams, Tables 1-2).

30.   Regarding claim 12, Ennis disclosed a method further comprising selecting for

display the at least one histogram for a particular host (Figures 11 and 13-16, column

17 lines 24-53).

31.   Regarding claim 13, Tams disclosed a method further comprising monitoring a

central location of the network for new traffic logs (Figures 5-6 and 8, column 13 lines

19-42).

32.   Regarding claim 14, Ennis, Tams, Schaffer, and Schweitzer combined disclose a

method of monitoring packet traffic through a node of a packet-switched network using

traffic logs, comprising:

> (a) creating a histogram file for at least one node in the network (Ennis, Figures
> 13-16, column 4 lines 45-64, column 5 lines 13-22);
>
> (b) generating a traffic log at a first location within the network based upon
> detection of a packet, the traffic log containing a plurality of values detected from
> the packet including a network entry point and a network exit point of the packet
> (Schaffer, Abstract, column 1 lines 17-35, column 2 lines 24-31, column 6 lines 5-
> 27);
>
> (c) transferring the traffic log from the first location [short term database] to a
> second location [long term database] (Ennis, Figure 10, column 14 lines 8-33);
>
> (d) storing the traffic log generated by the network at the second location [long
> term databases] (Ennis, Figure 10, column 2 lines 16-30);

(c) analyzing the stored traffic log to determine the time of creation of the traffic log and the network entry and exit points of the packet (Ennis, Figures 11, 13-16, column 3 lines 58-67, column 4 lines 45-64);

(f) determining a network path between the entry and exit points of the packet (Ennis, Figures 11, 13-16, column 3 lines 58-67, column 4 lines 45-64, column 7 lines 43-52);

(g) determining whether the node falls along the network path (Ennis column 7 lines 43-52);

(h) updating the histogram file using at least the time of creation of the traffic log when the node falls along the network path (Tams, Figures 8 and 10, column 25 lines 50-65; Ennis column 7 lines 43-52, column 8 lines 11-15); and

(i) generating billing data for network use at the second location using information from the stored traffic logs (Schweitzer, Abstract, Figure 1, column 2 lines 19-28, lines 44-53, column 5 lines 16-22).

33.   Regarding claim 15, Tams disclosed a method wherein the histogram file is a flat

file (column 2 lines 16-30).

34.   Regarding claim 16, Ennis disclosed a method wherein two histogram files are

created, a first histogram being representative of traffic being passed towards a higher

level of the network and a second histogram being representative of the traffic being

passed towards a lower level of the network or outside the network (column 4 lines 45-

59, column 7 lines 23-52).

35.   Regarding claim 17, Ennis disclosed a method further comprising repeating steps

(b) - (f) for at least a 24-hour period (column 4 lines 45-64, column 15 lines 31-45).

36.   Regarding claim 18, Ennis and Tams combined disclose a method wherein the

histogram plots packets per minute versus time (Ennis, Figures 11 and 13-16; Tams,

column 3 lines 44-52).

37.   Regarding claim 19, Ennis disclosed further comprising broadcasting, from a

server computer, data representative of the histogram to a client computer (column 15

lines 31-45). Tams also disclosed this limitation (column 6 lines 39-45).

38.   Regarding claim 20, Ennis disclosed wherein the network is a packet network

[Mobitex network] (Title; Abstract). (Note: Mobitex technology is a well-known packet

data network).

39.   Regarding claim 21, Ennis disclosed further comprising displaying a histogram

based on data in the histogram file (Figures 11 and 13-16, column 6 lines 9-37, column

17 lines 6-24).

40.   Regarding claim 22, Ennis and Tams disclosed further comprising creating at

least one histogram for each node of the network (Ennis, Figures 11 and 13-16, column

17 lines 25-53; Tams, Tables 1-4A).

41.   Regarding claim 23, Ennis disclosed further comprising selecting for display the

at least one histogram for a particular node (Figures 11 and 13-16, column 17 lines 24-

53).

42.   Regarding claim 24, Tams disclosed further comprising monitoring a central

location of the network for new traffic logs (Figures 5-6 and 8, column 13 lines 19-42).

43.   Regarding claim 25, Ennis, Tams, Schaffer, and Schweitzer combined disclose a

method of monitoring packet traffic through a link connecting two nodes of a

packet-switched network using traffic logs, comprising:

   (a) creating a histogram file for at least one link in the network (Ennis, Figures
   13-16, column 4 lines 45-64, column 5 lines 13-22);

   (b) generating a traffic log at a first location within the network based upon
   detection of a packet, the traffic log containing a plurality of values detected from

the packet including a network entry point and a network exit point of the packet and a number of bytes of the packet (Schaffer, Abstract, Figure 1, column 1 lines 17-35, column 2 lines 24-31, column 6 lines 5-27);

(c) transferring the traffic log from the first location [short term database] to a second location [long term database] (Ennis, Figure 10, column 14 lines 8-33); (d) storing the traffic log generated by the network (Ennis, Figure 10, column 2 lines 16-30);

(c) analyzing the traffic log to determine the time of creation of the traffic log and the network entry and exit points of the packet(Ennis, Figures 11, 13-16, column 3 lines 58-67, column 4 lines 45-64);

(f) determining a network path between the entry and exit points (Ennis, Figures 11, 13-16, column 3 lines 58-67, column 4 lines 45-64, column 7 lines 43-52);

(g) determining whether the link falls along the network path (Ennis column 7 lines 43-52);

(h) determining a number of bytes carried by the packet associated with the traffic log (Shaffer, Figure 1, column 48-54);

(i) updating the histogram file using at least the time of creation of the traffic log when the node falls along the network path and the number of bytes when the link falls along the network path (Tams, Figures 8 and 10, column 25 lines 50-65; Ennis column 7 lines 43-52, column 8 lines 11-15); and

(j) generating billing data for network use at the second location using information from the stored traffic logs (Schweitzer, Abstract, Figure 1, column 2 lines 19-28, lines 44-53, column 5 lines 16-22).

44.   Regarding claims 26-35, the limitations are closely similar to the limitations of claims 15-24, and thus are rejected using the same rationale.

45.   Regarding claim 36, Ennis, Tams, and Shaffer combined disclose a method of monitoring the operations of a packet-switched network, the network automatically generating a traffic log when a packet enters or exits the network by detecting values from the packet (Tams, column 13 lines 35-38; Schaffer, Abstract), the method comprising:

(a) detecting when a new traffic log is available at a network control center (Ennis, column 3 lines 41-67; Tams, Figures 5 and 8);

(b) downloading the new traffic log to a server computer that maintains a plurality of histogram files (Schaffer, Figure 8 sign 114, column 8 lines 43-60);

(c) updating at least one histogram file of the server computer using information available from the new traffic log by analyzing the new traffic log to determine one or more values detected from the packet that are stored by the new traffic log that are relevant to the at least one histogram (Ennis, Figures 8 and 10, column 35-65; Schaffer, column 8 lines 43-60);

(d) deleting the new traffic log (Tams, column 4 lines 29-43, column 25 lines 35-49);

(e) making the updated at least one histogram file available to a client computer from the server computer (Ennis, column 15 lines 31-45; Schaffer, column 8 lines 61-67); and

(f) generating billing data for network use at the second location using information from the stored traffic logs (Schweitzer, Abstract, Figure 1, column 2 lines 19-28, lines 44-53, column 5 lines 16-22).

46.   Regarding claims 37-41, the limitations are closely similar to the limitations of claims 2-13 & 15-24, thus these claims are rejected using the same rationale.

47.   Regarding claim 42, Tams disclosed a method wherein the updating step comprises incrementing a value in the histogram file (column 2 lines 42-59).

48.   Regarding claim 43, Ennis, Tams, and Schaffer combined disclose a method of analyzing the performance of a packet-switched network, the network automatically generating a traffic log, each time a packet exits the network, each traffic log including at least the time the traffic log was created, the addresses of the packet sender and packet recipient, and the entry and exit network nodes (Schaffer, Abstract, Figure 1, column 1 lines 13-35, Tams, Figure 5, column 4 lines 17-24) the method comprising the steps of:

(a) collecting at a centralized location a plurality of traffic logs from the network, with each traffic log containing information relevant to a different packet that has exited the network (Ennis, Abstract, column 3 lines 41-67, column 4 lines 45-67; Tams, Table 2);

(b) analyzing each of the plurality of traffic logs to determine information about each of the packets that have exited the network (Schaffer, column 1 lines 17-35, column 6 lines 5-26);

(c) automatically generating a plurality of histograms, each histogram being based on information gleaned from the plurality of traffic logs about the packets that have exited the network; and

(d) generating billing data for network use at the second location using information from the stored traffic logs (Schweitzer, Abstract, Figure 1, column 2 lines 19-28, lines 44-53, column 5 lines 16-22),

> wherein at least one histogram is representative of packet traffic passing through a host connected to the network (Ennis, Figures 11 and 13-16, column 4 lines 45-67, column 14 lines 1-33).

49.   Regarding claims 44-48, the limitations are closely similar to the limitations of

claims 2-3, 8, 12, and 33.

50.   Regarding claims 49-59, the system corresponds directly to the method of claims

1-13, and thus these claims are rejected using the same rationale.

51.   Regarding claims 60-68, the system corresponds directly to the method of claims

14-16 & 18-23, and thus these claims are rejected using the same rationale.

52.   Regarding claims 69-77, the system corresponds directly to the method of claims

25-27 & 29-34, and thus these claims are rejected using the same rationale.

53.   Regarding claims 78-83, the system corresponds directly to the method of claims

36-41, and thus these claims are rejected using the same rationale.

54.   Regarding claims 84-87, the system corresponds directly to the method of claims

43 & 46-47, and thus these claims are rejected using the same rationale.

55.   Since all the limitations of the claimed invention were disclosed by the

combination of Ennis, Tams, and Schaffer, claims 1-87 are rejected.

Response to Arguments

56.   Applicant's arguments received on 01/10/2005 with respect to claims 1-87 have

been considered but are moot in view of the new ground(s) of rejection.

57.   In response to applicants' response that Ennis, Tams, and Schaffer do not

disclosed the step of using information from traffic logs to generate billing data, it is

submitted that Schweitzer disclosed a method wherein traffic log information is stored in

a database [second location] and database operations are performed in order to create

billing data and report data. Please refer to the above rejection for details. Examiner

asserts that the combined teachings of Ennis, Tams, Schaffer, and Schweitzer

disclosed all the claimed limitations of the currently amended claims. Moreover, the

teaching of generating billing data using information from the stored traffic logs was well

known in the art at the time of the invention. Please refer to PTO-892 for relevant cited

prior arts regarding this well known limitation.

58.   As the rejection reads, Examiner asserts that the combination of these teachings

render the claimed invention obvious.

Conclusion

59.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

        a.   Hernandez et al. (U.S. Patent Number 6,542,601) disclosed a call detail

        platform (CDP), which comprises a database for storing network usage data that

        may be used to generate bills and track network resource usage and traffic.

b.   Garson et al. (U.S. Patent Number 5,689,550) disclosed methods and apparatus for interfacing a plurality of voice messaging systems with a communications network. Voice messages from voice message computers are processed by an interface and transmitted over communications network to its destination. Garson also disclosed a network management site which monitors and manages the network wherein the CDR records in the Archive database are access to generate billing reports, error reports, statistical analysis to NIB customers, and other information service (IS) functions.

c.   Newman et al. (U.S. Patent Number 5,940,472) disclosed a billing verification system having a central database that contains billing information for the test network. The controller creates a billing template for each test call in which real-time billing verification is desired. The template contains information that is based on expected billing data. The template is based on parameters such as the test call connection time, etc. After a test call is complete, the controller communicates with the billing verification system to compare the billing records contained therein with the billing template. A log is generated based on the results of that comparison.

60.   Refer to the enclosed PTO-892 for details and complete listing of relevant prior arts of record.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tam (Jenny) Phan whose telephone number is (571) 272-3930. The examiner can normally be reached on M-F 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, William Cuchlinski can be reached on (571) 272-3925. The fax phone

number for the organization where this application or proceeding is assigned is 703-

872-9306.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is (703) 305-

3900.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

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